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Attorney Docket No. 6655.P003  
MJM/jmk

Patent  
10/678,247

**AMENDMENTS TO THE DRAWINGS**

The attached sheet of drawings includes changes to Fig. 8. This sheet, which includes Fig. 8, replaces the original sheet including Fig. 8. In Fig. 8, previously labeled item 856 has been relabeled to 858.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

REMARKS

The Applicants respectfully request reconsideration of this application as amended.

Claims 1-33 are pending in the application. Claims 1-5, 14-16, 18, and 25-33 have been amended.

The Examiner objected to the drawings. Figure 8 has been amended to change one out of the two reference characters labeled “856” to “858.” The specification has also been amended accordingly. Accordingly, the Applicants request that this objection be withdrawn.

The Examiner objected to the specification because of various informalities. The Applicants have amended the specification to correct each of the informalities identified by the Examiner. Withdrawal of this objection is respectfully requested.

With respect to the claim objections, the Applicants have amended the claims in accordance with the Examiner’s suggestions. Thus, the Applicants request that this rejection be withdrawn.

The Examiner rejected claims 25-33 under 35 U.S.C. § 101. The claims have been amended to recite a “computer readable medium” rather than an “article of manufacture” as suggested by the Examiner. Therefore, the Applicants request that this rejection be withdrawn.

The Examiner rejected claims 1, 14, and 25 under 35 U.S.C. § 102(b) as being anticipated by Chen *et al.* (“A New Algorithm for Parameter Re-Optimization,” 2000). This rejection should be withdrawn for at least the following reason. Chen *et al.* does not describe each and every element of the amended claims.

For a prior art reference to anticipate, 35 U.S.C. §102 requires that “each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (quoting Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)) (emphasis added).

In particular, amended independent claims 1, 14, and 25 recite: “substantially reducing the synthesis error comprises applying a gradient descent algorithm to **partitioned roots** of a polynomial representing the synthesis error over a series of iterations” (emphasis added). The recited limitation provides for improved computational efficiency (*See Application*, paragraph 0030). Chen *et al.* does not describe the claimed limitation.

Chen *et al.* relates to optimizing synthesis filter parameters and pulse amplitudes based on minimizing the perceptual weighted mean square errors between the original and the reconstructed speech (*See Chen et al.*, Abstract and Introduction). Chen *et al.* is silent regarding roots of a polynomial, let alone applying a gradient descent algorithm to **partitioned roots** of a polynomial.

Accordingly, the Applicants respectfully submit that the rejection under 35 U.S.C. § 102(b) has been overcome by the amendments and the remarks. The Applicants submit that claims 1, 14, and 25 as amended are not anticipated by Chen *et al.* Accordingly, it is requested that the anticipation rejection of these claims based on Chen *et al.* be reconsidered.

The Examiner rejected claims 1-3, 9-16, and 22-26 under 35 U.S.C. § 102(e) as being anticipating by Chu *et al.* (U.S. 2003/0204402). This rejection should be withdrawn for at least the following reason. Chu *et al.* also does not describe “substantially reducing the synthesis error comprises applying a gradient descent algorithm to **partitioned roots** of a polynomial representing the synthesis error over a series of iterations” (*See* amended independent claims 1, 14, and 25) (emphasis added).

Chu *et al.* specifically points out in paragraph 0009 that the described “optimization algorithm computes coefficients of a synthesis filter polynomial without using convolution and *without converting the coefficients into the root domain*” (emphasis added). The cited reference focuses on an algorithm that avoids the root domain.

Claims 2-3 and 9-13 depend from independent claim 1, claims 16 and 22-24 depend from independent claim 14, and claim 26 depends from independent claim 25, and incorporate the limitations thereof. Thus, for at least the reasons discussed above relating to independent claims 1, 14, and 25, Chu *et al.* does not describe each and every element of the independent and dependent claims.

Accordingly, the Applicants respectfully submit that the rejection under 35 U.S.C. § 102(e) has been overcome by the amendments and the remarks. The Applicants submit that claims 1-3, 9-16, and 22-26 are now in condition for allowance and such action is earnestly solicited.

**STATEMENT OF COMMON OWNERSHIP FOR 35 U.S.C. § 103(c): Application 10/678,247 and Chu et al. (U.S. 2003/0204402) were, at the time the invention of Application 10/678,247 was made, owned by or subject to an obligation to assign to DoCoMo Communications Laboratories.**

This statement disqualifies Chu *et al.* from being used in a rejection under 35 U.S.C. § 103(a) against the claims of Application 10/678,247 (See MPEP § 706.02(l)(2)). Therefore, the rejections under 35 U.S.C. § 103(a) as applied to claims 4-8, 17-21, and 27-33 should be withdrawn.

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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Annotated Sheet Showing Changes

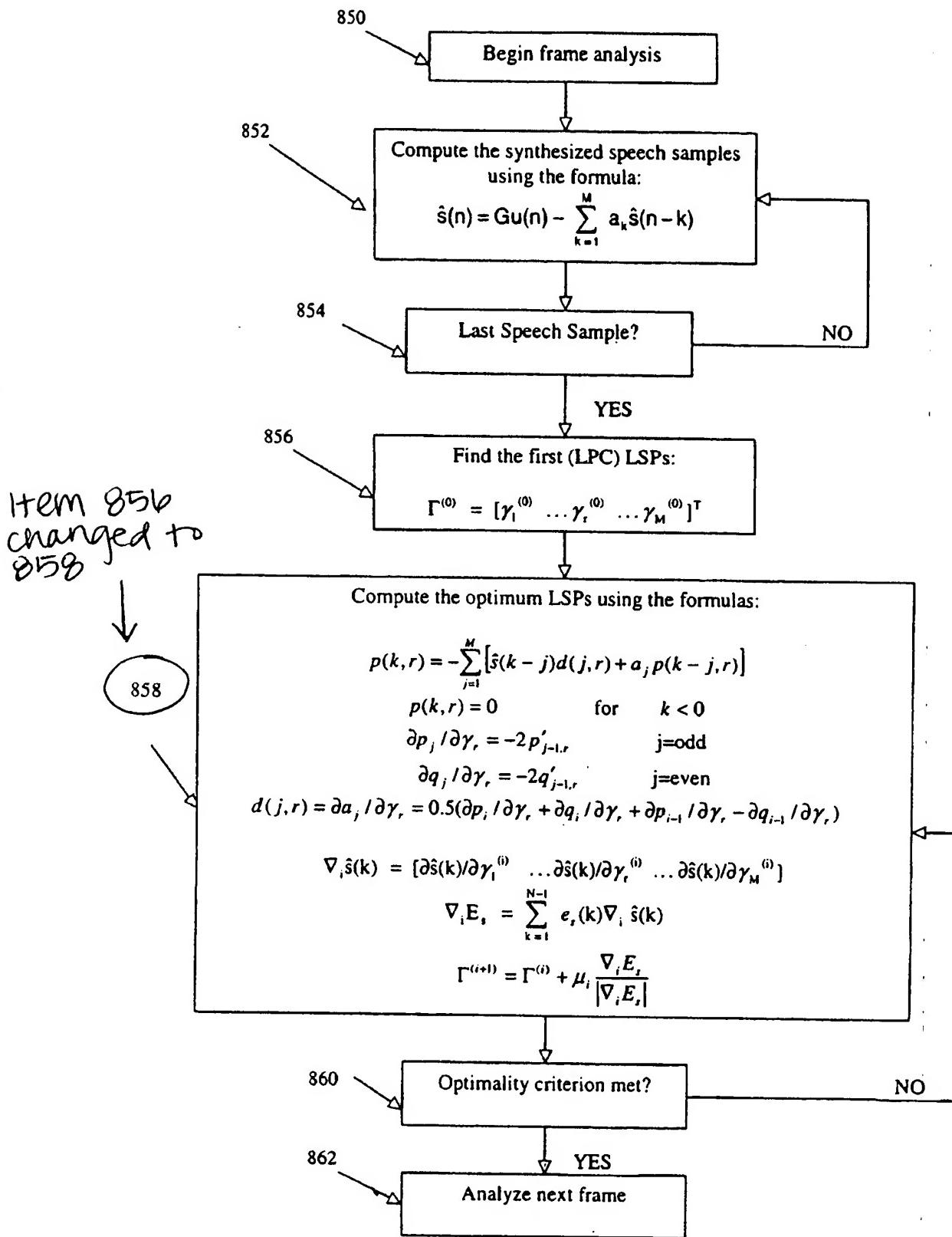


Figure 8